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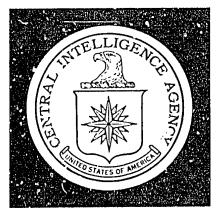
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DIRECTORATE OF INTELLIGENCE

## Intelligence Memorandum

Logistical Developments in the North Vietnamese and Laotian Panhandles Since Mid-November 1968

DIA review completed.

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NGA Review Completed

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CENTRAL INTELLIGENCE AGENCY Directorate of Intelligence March 1969

INTELLIGENCE MEMORANDUM

Logistical Developments in the North Vietnamese and Laotian Panhandles Since Mid-November 1968

#### Summary

Since the bombing halt the North Vietnamese have moved supplies into the Southern Panhandle of North Vietnam and carried on logistical activities at a rate that should insure adequate supplies for enemy forces in South Vietnam for months to come.\*

The enemy's logistical activities in North Vietnam are well-organized and speedy, but not frenzied. Major logistical bases have been moved southward from north of the 19th Parallel to Quang Binh, the southernmost province of North Vietnam. Supplies now can move from storage depots within Quang Binh directly into southern Laos over Routes 15 and 137 or to the Demilitarized Zone.

Large volumes of supplies are being stored in the open throughout the Southern Panhandle of North Vietnam, reflecting an apparent confidence that there will be no resumption of the bombing. At the same time, there is evidence that the North Vietnamese continue to disperse supplies and to build revetments around storage areas as insurance against any resumption of the air war.

<sup>\*</sup> For a discussion of logistical developments in North Vietnam north of the 20th Parallel, see the Appendix.

Note: This memorandum was produced solely by CIA. It was prepared by the Office of Economic Research and was coordinated with the Office of Current Intelligence and the Director's Special Assistant for Vietnamese Affairs.

North Vietnamese coastal craft have been bringing greater quantities of both food and arms directly from Haiphong to the southern ports, and foreign-flag ships have transported foodstuffs from Haiphong to Vinh. Maritime activity in the Panhandle increased sharply after the bombing halt and reached a peak in December. Since the beginning of the year, however, there has been a decline in shipping off the coast of North Vietnam.

Motor vehicle activity is centered in and around the extremely active storage and transshipment areas at Quang Khe and Dong Hoi on the coast, at Vinh, and at Bai Duc Thom, about 30 miles north of Mu Gia Fass. Most of the highway bottlenecks which had made truck movements difficult have been eliminated.

With the advent of the dry season and following the pattern of previous years, traffic moving into Laos increased substantially in both December and January. The total tonnage of supplies moving into the Panhandle of Laos this dry season appears to be about 20 percent greater than during the comparable period last year. All indicators of truck movements within Laos show a substantial increase since mid-November despite the acceleration of the air war in Laos. Attacks against key road chokepoints have resulted in temporary interruptions to truck traffic, but the simple, relatively primitive nature of the target system in Laos and the ability of the enemy to take countermeasures have permitted the North Vietnamese to continue to move supplies throughout the Panhandle.

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#### Railroads

- 1. Through rail service from Thanh Hoa to Vinh was restored shortly after the bombing halt. The current use of standard meter-gauge locomotives and cars, rather than small lightweight cars and truck-type locomotives, indicates that the two main bridges north of Vinh -- at Dien Chau and Tam Da -- have been restored to accommodate the heavier loads.
- 2. Rail movements between Thanh Hoa and Vinh have continued at a high level; recent aerial photography showed a record number of freight cars on the rail line. Large stockpiles of supplies at various depots and storage areas also continued to be observed along the rail line, and some transshipment areas have been expanded.
- 3. The northern portion of the tramway -- a lightweight rail line -- in the southern Panhandle of North Vietnam has been restored. Several small flatcars have been observed on the restored segment of the line operating in the vicinity of a new water-to-rail transshipment area that has been constructed on the Song Ca about ten miles southwest of Vinh. At present, a joint water-tramway route exists from the major supply areas around Vinh to Ma Thuong, about 25 miles northwest of Quang Khe -- a distance of about 60 miles. The southern portion of the tramway, from Xom Hoai to Ma Thuong, had remained open to shuttle operations even during the heaviest periods of bombing.

#### Highways

4. The high level of truck traffic observed in the Panhandle of North Vietnam following the bombing halt on 1 November has continued through December and into January. Truck activity has centered in and around the storage and transshipment areas at Quang Khe and Dong Hoi on the coast and at Bai Duc Thom 30 miles north of Mu Gia Pass. Traffic was generally well-dispersed and moving both north and south. Bomb damage to the highways has been largely repaired and no major bottlenecks remain.

- 5. The Bai Duc Thom area, just north of the 18th Parallel and along the main highway to Mu Gia Pass 30 miles to the south, has been particularly active. This area, long an established logistics base and convoy staging area, is rapidly being expanded, and large quantities of supplies are being shipped in. Large numbers of watercraft have been observed off-loading supplies at transshipment points, and truck-locomotives are operating on the tramway both north and south of the area. Newly bunkered storage sites and considerable truck traffic not in evidence before the 1 November bombing halt have been observed on nearby feeder Routes 1598 and 1599.
- 6. Truck traffic noted on Route 1A, the major north-south coastal route, has been heavy, particularly near the busy transshipment areas along 1A at Vinh, Quang Khe, and Dong Hoi. Concentrations of up to 160 trucks have been repeatedly sighted in and around these areas.
- 7. Although little logistical activity has been observed within the Demilitarized Zone (DMZ) and along Routes 100 and 102 immediately to the north, some logistical activities near the DMZ have been noted. On Route 103 -- which leads to the western DMZ -- several small convoys and about five

BTR-40P amphibious scout cars mounted with antiaircraft guns have been noted. New fords have been built at several locations near the southern end of Route 103. Route 1036 -- a new infiltration route -- is motorable for at least a short distance across the border into southern Laos. A roadwatch team has reported trucks moving on the road in Laos, but it is not clear whether these trucks are employed in construction of the extension of the road in Laos, or in feeding the trails that extend from the present terminus of the road with military supplies.

#### Coastal Shipping

8. North Vietnam's small fleet of merchant coasters and the SL-type coasters\* began to ply the

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<sup>\*</sup> North Vietnam has about 40 Chinese-built SL's. The inventory consists mainly of the type that can carry 200 tons at a speed of about 18 knots.



coast from Haiphong to the southern river ports of Vinh, Quang Khe, and Dong Hoi immediately after the bombing halt. North Vietnamese radar coastal stations tracked an average of 19 vessels a day south of the 20th Parallel during October, 82 in November, and 118 in December. In January the number declined to 66 vessels per day and in early February the daily average declined further. During December, four foreign flag ships of UK-Hong Kong, Singapore, and Cypriot registries also made single trips from Haiphong to southern ports, and in early January one foreign Communist ship and one Free World ship were observed unloading cargo at the anchorage near Vinh.\* All of them carried Loodstuffs.

The North Vietnamese coastal vessels that have been moving material further south to Quang Khe and Dong Hoi have also carried large quantities of food. POL drums and boxes and crates that are similar to those used to carry ammunition have been noted at Quang Khe. However, most of the identifiable cargoes at Quang Khe and Dong Hoi appear to be foodstuffs. The lower Panhandle of North Vietnam is normally a food-deficit area, and it is probable that the intensified bombing during the 1968 rice-growing season has interfered with agricultural output, increasing the requirements for foodstuffs from outside sources. The decline in coastal shipping that has occurred since the first cf the year may indicate that the initial stockpiling effort in the southern provinces that occurred after the bombing halt has been completed.

#### Petroleum Pipeline

10. Construction work continued unabated on the military-type petroleum pipeline first observed under construction in July 1968. At the northern end of the pipeline, a new three-mile section has been identified extending in a northwesterly direction from the dispersed petroleum site at Phuc Yen. Since

<sup>\*</sup> The four ships noted in December were the Marianthi (Cypriot), 2,700 deadweight tons (DWT); Swift Dragon (Singapore), 4,500 DWT, Shun On (UK-Hong Kong), 10,100 DWT; and Shun Wing (UK-Hong Kong), 10,100 DWT. The two ships noted in January were the Hung Chi 153 (Chinese Communist), 4,500 DWT, and Fortune Glory (UK-Hong Kong), 6,800 DWT. Also on 27 January, two unidentified oceangoing ships of about 4,500 DWT each were noted at the anchorage near Vinh.

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construction efforts have slackened in the northern area while concomitantly being increased in and south of the Vinh area. At Vinh, new additions of pipe sections have extended a	25X1 25X1
west of the recently restored Vinh Petroleum Products Site	25X1
Vinh, approximately 25 miles of new pipeline have been identified as extending southward to the vicinity of Bai Duc Thom a major convoy staging area and supply logistics complex, 30 miles distant from the Laotian border, via Mu Gia Pass. The new north-south additions now bring the	25 <b>X</b> 1
total length of the identified pipeline to about 65 miles. But reports received during January indicate that additional work is under way to extend the pipeline all the way to Mu Gia Pass. Photography of Laos shows traces of a probable petroleum pipeline seven miles south of Mu Gia Pass.	25 <b>X</b> 1
Air Transport	
11. The airfields at Dong Hoi and Vinh remain unserviceable for sustained jet operations. Although some of the craters at Vinh were filled soon after the bombing halt, the repairs have not been completed and the main runway remains interdicted. A sod shoulder 7,350 feet long and parallel to the main runway could be used for occasional flights during dry weather, but the lack of tracks on the sod indicates that it has not been used.	25X1
indicates that it has not been used.	
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#### Laos

#### Roadwatch Reports

15. A roadwatch team in North Vietnam on Route 15, which leads to Laos via Mu Gia Pass, reported that an average of 21 trucks a day moved south toward Laos during December 1968, about the same level as was observed in December 1967. In January 1969 an estimated average of 25 trucks a day went south through Mu Gia Pass into Laos, the same average as for the month of January 1968, as shown in the following tabulation:

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	<u>1967</u>	1968	<u>1969</u>
November	10	11	
December	20	21	
January	22	25	25

- 16. A team reporting on Route 912 stated that during the period 1-13 December a total of 27 trucks went south past it, an average of about two trucks a day. There were no reports from roadwatch teams on Route 912 from 14 December through 7 January. From 8 through 19 January a team reported an average of four trucks per day southbound. However, because the team was three miles from the road and usually made observations during the hours of darkness only, it probably was unable to count all the traffic moving on the road.
- 17. The Communists have now completed a third access road for motor trucks into southern Laos, Route 8, via Nape Pass to the north of Mu Gia.

Route 8 was motorable for more than half the distance to Route 12. By January this route was open for its entire length. Between 25 and 27 December a roadwatch team located near Route 8 about four miles south of the North Vietnamese border reported that 16 trucks moved south and 15 north. From 9 to 22 January, 35 trucks went south and 30 north.

18. Much of the truck traffic entering Laos through Mu Gia Pass apparently moved down Route 12 and then turned west over Route 1281. During the period 1-9 January, an average of 15 trucks a day reportedly moved west on Route 1281 -- the same average noted in January 1968. According to teams along Routes 92 and 96, traffic has been light south of the junction of Routes 92 and 922 since mid-November, although other observations indicate that traffic on these routes is being maintained.

#### Aerial Observations

19. The average number of trucks sighted by pilots per week in southern Lacs increased

dramatically in November, another 20 percent in December, and more than 70 percent in January (see Table 1).

20. Less than 20 percent of the attack sorties flown in the Commando Hunt\* area of southern Laos are currently directed against trucks. More than half the sorties flown are directed against key roads, including the following important chokepoints\*\*:

Name	Location			
Ban Pha Nop	Routes 23 and 1202			
Ban La Boy	Route 912			
Ban Sen Kua	Route 91B and bypasses			
(and Point Foxtrot)				
Ban Laho and Ban Kata	Route 914 and bypasses			

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- 21. Although sustained air attacks against these chokepoints have complicated the movement of supplies through Laos, the Communists have been able to continue to move supplies through the target areas. Enemy countermeasures have included the construction of numerous bypasses and decoy targets and moving additional engineering troops and antiaircraft artillery to the target areas.
- 22. Total truck sightings in the Laos Panhandle during the last quarter of 1968 were somewhat less than during the comparable period of 1967, partly

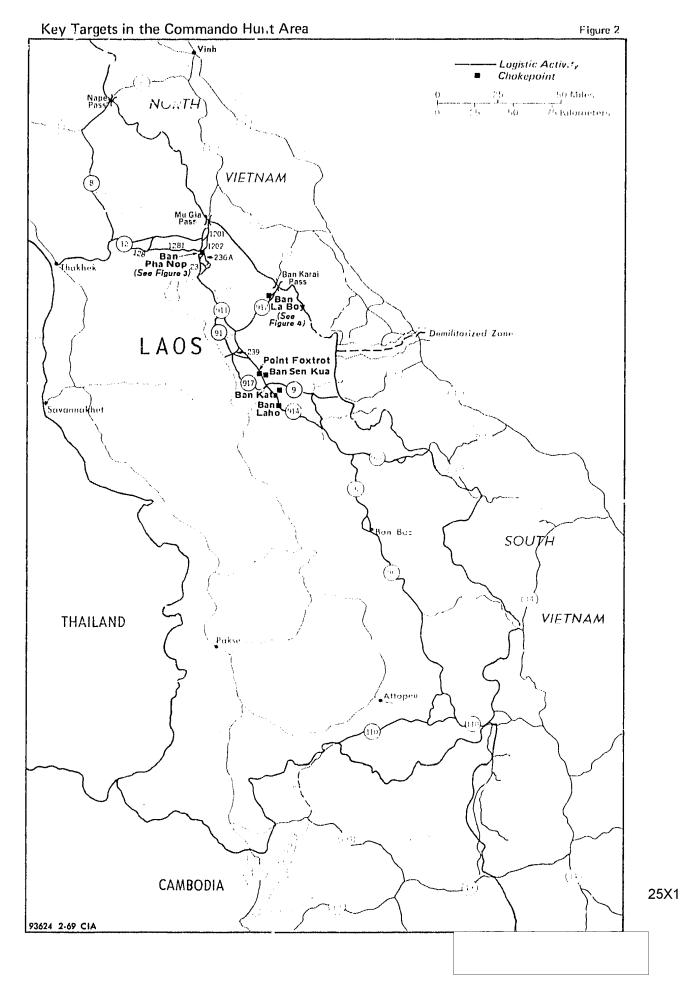
Pha Nop and Ban La Boy) chokepoints

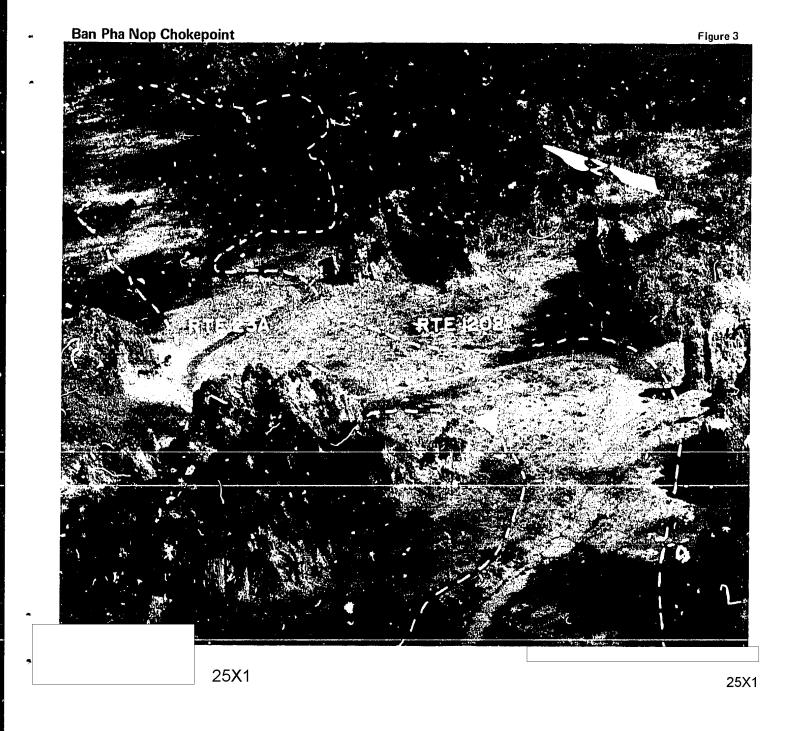
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<sup>\*</sup> Commando Hunt is a plan for conducting an intensified interdiction campaign in Laos during the 1968-69 northeast monsoon season. Its general purpose is to reduce the flow of enemy resources into South Vietnam by continuously attacking a few key chokepoints, rather than randomly attacking trucks, supply caches, and fixed resources, and, secondarily, to evaluate the Igloo White sensor program. Commando Hunt employs an improved command and control system, new munitions, and increased forces in ar area extending from the Mu Gia Pass to about six miles south of Sepone, embracing about 2,000 square miles and including 500 miles of motorable roads (see Figure 2).

\*\* Figures 3 and 4 show the two most important (Ban







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Table 1

Average Truck Sightings Per Week in Southern Laos Cctober - December 1967 and 1968 and January 1968 and 1969

	Average Number of Trucks Sighted per Week a/	Percent Increase over Pre- vious Month	Number of Truck Sightings per Ten Attack Sorties
1967			
October November December Weekly average October - December	224 991 1,365 859	342 38	4 11 10
1968			
January October November December Weekly average October - December	1,521 236 1,026 1,246	11  335 21	8 2 4 4
1969			
January <u>b</u> /	2,145	72	7

a. These are preliminary data Final data may be appreciably greater because of late reports not available at the time of publication.

because the wet season lasted longer in 1968, and partly because the increased intensity of the US air attacks in the fourth quarter of 1968 may have delayed the enemy's resupply effort that normally takes place between November and May. During

January, however, truck sightings went up markedly, especially on Routes 91 and 92, south of Route 9.

23. Pilots continued to report a low level of traffic in January on Route 912, one of the two access routes to Laos, but an increase in trucks on Route 23, an extension in Laos of the Mu Gia Pass access route. Traffic sightings also increased on Routes 12, 1281, and 128 during January, an increase resulting from the interdiction attempts in the Route 23A complex. Concomitant with the increase of traffic on the bypass routes, pilots began reporting an average of about three trucks a day on Route 8 during January. The reported decrease in traffic on Route 912 in 1968 and 1969 is probably a reflection of the heavy bombing that has recently been directed against this route and the redirection of traffic along alternate routes. Continuation of relatively high levels of traffic on Routes 23, 911, 91, 92, and 96 nevertheless indicates the enemy's persistence in maintaining the southbound flow of supplies despite the heavy air attacks (see Table 2).

#### Sensors

24. The number of trucks detected by sensors emplaced under the Igloo White program\* has increased substantially since the bombing halt in North Vietnam, as shown in the tabulation below. This increase has resulted not only from the additional sensors that have been emplaced since this time, but also from the fact that sensors now cover a larger part of the road network, including bypasses to main routes.

Period	Average Number of Trucks Detected per Week	Percent Increase over Previous Period
1968		
16-29 October 30 October -	320	~-
3 December 4-31 December	1,337 2,808	318 110
1969		
January	6,177	120

<sup>\*</sup> The Igloo White area is essentially the same as the Commando Hunt [footnote continued on p. 13]

Table 2

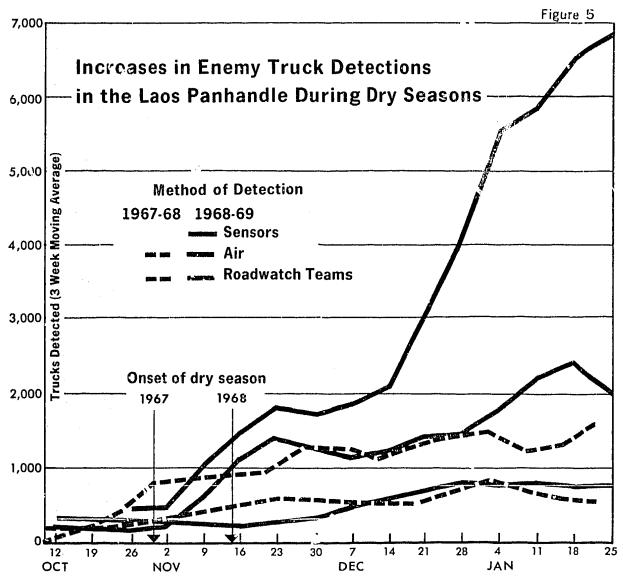
Average Truck Sightings Per Day by Pilots on Selected Routes October - December 1967 and 1968 and January 1968 and 1969

/	1967	1968	1968	1969
Routes	Oct - Dec	Jan	Oct - Dec	Jan
23 (north of 911) 912 911 91	7 21 54 16 1	19 7 78 17 7	10 5 37 11 5	24 4 69 24 26
92 (south of 9)	7	8	6	25
914	4	23	13	14
96	3	9	5	4
110	7	6	2	5

Detections by sensors since I November indicate that the Communists are exploiting the flexibility of the road network by using the alternate routes in the area between Mu Gia Pass and Sepone. Roads which show significant increases in truck traffic since mid-December from this source include Routes 8, 9, 236A, 239, and 917.

25. The overall data on truck movements in southern Laos -- roadwatch reporting, pilot sightings, and sensors -- clearly show that the traffic patterns in Laos this dry season are following about the same pattern as was observed during the 1967-68 dry season. The truck traffic in southern Laos began its seasonal increase early in November (see Figure 5) and has increased steadily since that time. The total tonnage of supplies moving into the Panhandle of Laos this dry season appears to be about 20 percent greater than during the comparable period last year.

operational area in the northern Laotian Panhandle, but some sensors are also emplaced south of the Commando Hunt area under the Igloo White program on roads such as Route 92 south of Route 9; on Route 922; and in the A Shau Valley.



Trucks shown without regard to direction of movement or location. Each method of detection includes unavoidable multiplicate counting. Sightings by serial observers are a function of the level of attack and of weather conditions. Weather improves each year in the dry season.

Sensor data available only for 1968-69. Throughout the period sensors were emplaced on additional routes and by-passes, and large numbers of trucks were detected on some of the newly-seeded routes. For example, from 1 November to 4 Februar; there was a 90-percent increase in the number of active sensors while there was a 620-percent increase in the number of trucks detected. There is not, however, a clear relationship between the number of active sensors and the number of truck detections.

#### APPENDIX

### Logistical Developments North of the 20th Parallel

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In the north, aerial photography revealed that one span of the recently rebuilt 970-foot Viet Tri Railroad/Highway Bridge on the northwestern railroad line that runs from Hanoi to Lao Cai has collapsed. Reconstruction had been under way on this bridge -- which had been left unrepaired for more than two years -- since at least last September. The span that collapsed was the only one from the original bridge that was not replaced. This bridge is the last major unrepaired bridge in North Vietnam.

Construction of the new 66-mile Hon Gai - Kep rail line which will connect the port of Hon Gai and the major coal-producing areas of North Vietnam with the main rail line from China is nearly half completed.

between September and January the North Vietnamese laid about 36 miles of new track and had built several bridges on the eastern section of the line. On the western portion, little construction has been completed since last summer, when extensive flooding of the right-of-way caused a three-month work stoppage.

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In early October, construction of a new airfield at Dong Suong about 18 miles southwest of Hanoi was begun. This field will probably have a runway 7,800 feet by 150 feet that will be capable of handling jet aircraft. Work is progressing rapidly and it could be completed by late 1969. Its location suggests that it is intended to protect Hanoi's southwest flank or to support operations in Laos. Photography showed craters being filled at the minor airfield located at Dien Bien Phu, which was first bombed in July 1965 and has remained inactive since that time.

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